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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,813	01/03/2002	Lawrence M. Boyd	4002-2734	1340

7590

09/12/2003

Kenneth A Gandy
Woodard Emhardt Naughton Moriarty & Mcnett
Bank One Ceter Tower Suite 3700
111 Monument Circle
Indianapolis, IN 46204

EXAMINER

COMSTOCK, DAVID C

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,813

Applicant(s)

BOYD ET AL.

Examiner

David C. Comstock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 6, 7, 13-15, 17, 18, 40-43, and 52-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Brosnahan, III (5,645,598; cited by applicant).

Brosnahan, III discloses a fusion spacer 10 comprising a generally cylindrical elongate body defining a side wall opening into an interior cavity 40. The first and second ends have a concave discontinuity 48,50. The side wall includes threads. The end walls are integrally fixed to the side wall. The spacer includes a tool-engaging end having a tool-engaging hole 32. The cavity is filled with an osteogenic material 42 (see col. 5, lines 31-45). The device includes the concave discontinuities to allow it to be closely nested with another implant (see col. 5, lines 46-62). The end walls have a profile defining a discontinuous arc 44,46 extending around at least 180 degrees of the circle and comprise the two concave surfaces 48,50 (see Fig. 14).

Claims 38 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Vich (4,877,020)

Vich discloses a tool 20 comprising a shaft 29 extending through a passageway 31 in a housing 22. An occlusion member 21 is extendible from the distal end of the housing and includes a spacer engager 25. The interior and exterior surfaces of the occlusion member are curved about the longitudinal axis of the tool. (See Figs. 4-6.)

Claims 1-8, 13-27, 32-37, 40-42, 44-48, and 52-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Kohrs (6,224,631).

Kohrs discloses a fusion spacer 10 comprising a generally cylindrical elongate body 4,5 (see Figs. 1, 2, and 4). The first and second ends have a concave discontinuity 21,22 that extends across the length of the spacer and defines an interior cavity 9a,9b,9c. The side wall includes threads 7 and openings 12. The spacer includes a tool-engaging end 3 having a tool-engaging hole 24a,24b (see Figs. 4 and 15 and col. 10, lines 8-30). The cavity is filled with an osteogenic material such as BMP, an osteoinductive factor (see col. 5, lines 12-40). The shape of the device renders it capable of being nested with another implant. The end walls have a profile defining a discontinuous arc extending around at least 180 degrees of the circle and comprise the concave surfaces 21,22 (see Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-12 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohrs (6,224,631).

Kohrs discloses the claimed invention except for the side wall opening being defined by a side wall discontinuity extending over 10%-50% or 20%-40% of the circumference of the body or extending at least 50% or 80% of the length of the body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the side wall discontinuity to extend over 10%-50% or 20%-40% of the circumference of the body or to extend at least 50% or 80% of the length of the body since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 43 and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohrs (6,224,631) in view of Brosnahan, III (5,645,598; cited by applicant).

Kohrs discloses the claimed invention except for nesting the two implants. Brosnahan discloses providing a fusion spacer 10 with concave surfaces 48,50 and nesting the spacer within another fusion device to allow the use of taller fusion devices and promote correct anatomical positioning (see Fig. 14 and col. 5, lines 55-62). It

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would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the method of Kohrs with a step of nesting one spacer within another spacer, in view of Brosnahan, III, in order to allow the use of taller fusion devices for correct anatomical positioning.

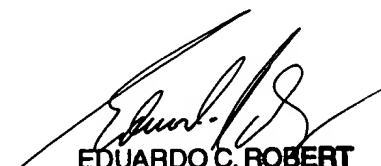
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Comstock whose telephone number is (703) 308-8514.



D.C. Comstock
05 September 2003



EDUARDO C. ROBERT
PRIMARY EXAMINER